

Notice of Allowability

Application No.

09/987,608

Examiner

Ashutosh Upreti

Applicant(s)

PASQUA, JOE

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to _____.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☒ The drawings filed on 11/15/2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892) .
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Deborah Gladstein (Reg. No. 43636) on January 3, 2005.

The application has been amended as follows:

In the claims

In claim 19, at line 4, remove "stories" and replace with "stores".

In the abstract

At line 2, remove "document" and replace with "the document".

Reasons for Allowance

2. The following is an examiner's statement of reasons for allowance:

Claim 1 requires rearranging an encoding vector to include watermark information and storing the rearranged vector with the document. These features in combination with the other elements of the claim are neither disclosed nor suggested in the prior art of record. Claims 14 and 19 also recite similar limitations. Claim 2 depends from claim 1. Claims 14 and 19 have no dependant claims.

Claim 3 requires rearranging the encoding vector according to a key such that identification information is included in the rearranged encoding vector. These features

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in combination with the other elements of the claim are neither disclose nor suggested in the prior art of record. Claim 11 also recites similar limitations. Claims 4-6 are dependant from claim 3. Claim 12 is dependant from claim 11.

Claim 7 requires determining whether an encoding vector of the document has been modified according to a key and reading the watermark a according to the key. These features in combination with the other elements of the claim are neither disclose nor suggested in the prior art of record. Claim 20 also recites similar limitations. Claim 8 is dependant from claim 7. Claim 20 has no dependant claims.

Claim 9 requires determining whether an index of the encoding vector has been modified and if so, determining the resulting watermark value according to the modified index. These features in combination with the other elements of the claim are neither disclose nor suggested in the prior art of record. Claim 13 also recites similar limitations. Claim 10 is dependant from claim 9. Claim 13 has no dependant claims.

Claim 15 requires generating a variant key of an input key according to information about a font that is associated with a specific encoding vector; generating a sequence of pairs of indices into the encoding vector corresponding to the key and embedding the watermark according to these indices. These features in combination with the other elements of the claim are neither disclose nor suggested in the prior art of record. Claim 17 also recites similar limitations. Claim 16 depends from claim 15. Claim 18 depends from claim 17.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

References Cited

3. The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure.

PostScript Language Reference Manual 2nd Ed. teaches changing the encoding of existing fonts (page 270, lines 23-24) and creating a new font with any desired encoding vector (page 270, lines 26-27). Also disclosed is the use of a unique ID to help an interpreting program to identify an encoded font (section 5.8, page 283, lines 1-2). This means that the documents must be scanned to determine encoding vectors and to see if the encoding vector is a standard one.

PDF Reference 2nd Ed. teaches the use of encoding vectors in PDF (Portable Document Format) files (Appendix D, page 549, lines 1-2). Also disclosed is seeing if a document is using a standard (recognizable) encoding vector (or dictionary) (Appendix H2 page 625, lines 1-2).

Huttenlocher (U.S. Patent 6,011,905) teaches the use of encoding vectors when representing the text in a document (column 15, lines 38-42).

Hirayama (U.S. Patent 6,782,509) teaches embedding watermarks in PDF documents (column 8, lines 64-66). Embedding a watermark based upon a key is also taught in Hirayama (column 6, lines 50-52).

Wong (U.S. Patent 6,504,941) teaches invisible digital watermarking (column 8, line 60). Also taught is the use of public keys (Figure 10A, 1020) and secret keys (Figure 11) in watermarking.

Natarajan (U.S. Patent Application 2002/0016916 A1) teaches the use of digital watermarking in documents (paragraph 0020, line 2). Here a digital object can be a document as an electronic document is represented in digital form. Also taught is the use of public keys and private keys in watermarking (paragraph 0024, lines 2-4).

Contact Details

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashutosh Upreti whose telephone number is (703) 306 4087. The examiner can normally be reached on Monday-Friday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703) 308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A.U.
January 25, 2005


Jon Chang
Primary Examiner